

Applicants: Gillett et al
U.S.S.N. 09/991,006
Filing Date: November 21, 2001
Atty. Docket No.: EMC-04-052

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A system for delivering content over a data network, comprising:

a data storage device for storing content to be delivered over the data network,

a server process capable of monitoring the data network for responding to a

request to serve selected content over the data network, and

a file system capable of communicating with the server process and capable of processing

the request to identify meta-data associated with the selected content and being representative of

a level of service to be provided the selected content.
2. (previously presented) A system according to claim 1, further including a service level
manager capable of determining, as a function of the meta-data, whether the selected content
may be serviced in compliance with the associated level of service.
3. (previously presented) A system according to claim 1, wherein the server process
includes a process for directing the request to the service level manager.
4. (previously presented) A system according to claim 3, wherein the service level manager
includes a request analyzer process for analyzing the request to identify information associated
with a level of service to provide the request.

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5. (currently amended) A process according to claim 3, wherein the request analyzer process includes means for identifying information selected from the group consisting of user identification, user ISP identification, transmission throughput, client, and CDN server identification.
6. (previously presented) A system according to claim 3, wherein the service level manager includes a process for directing the server process to employ a selected file open process for requesting the file system to access data associated with the selected content.
7. (previously presented) A system according to claim 1, wherein the server process includes a file open process that includes a plurality of file open methods for indicating to the file system information representative of the level of service to provide the request.
8. (previously presented) A system according to claim 1, wherein the file system includes a process for associating with a file open request information representative of a level of service to provide to content associated with that request.
9. (previously presented) A system according to claim 1, further including a service level manager disposed at the front end of the server process for processing the request to associate with the request a level of service to provide.
10. (previously presented) A system according to claim 9, wherein the service level manager includes a process for embedding into a pathname service level information to be associated with the selected content.

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11. (currently amended) A system according to claim 10 wherein the embedding process embeds service level information into a URL ~~pathname~~.
12. (previously presented) A system according to claim 1, wherein the file system includes parsing means for parsing a pathname associated with the selected content to identify a level of service to provide to the requested content.
13. (previously presented) A system according to claim 1, wherein the file system includes a process for associating the selected content with one of a plurality of different service levels.
14. (previously presented) A system according to claim 1, further including a scheduling process for generating a schedule for servicing the requested content.
15. (previously presented) A system according to claim 14, further including an admission process, responsive to the scheduling process, for employing the schedule to determine whether the request for selected content can be accommodated at the level of service associated with the request.
16. (currently amended) A system according to claim 14, wherein the scheduling process determines a deadline parameter representative of a time constraint for processing the request.
17. (previously presented) A system according to claim 16, wherein the scheduling process determines the deadline parameter as a function of a target bit-rate for serving the selected content.

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18. (previously presented) A system according to claim 16, wherein the scheduling process includes a process for employing the deadline parameter to generate the schedule for servicing the request.

19. (previously presented) A system according to claim 1, further including a slack-time process for arbitrating between scheduling requirements of content having different priorities of service levels.

20. (previously presented) A system according to claim 1, further including a control process for managing a system resource for controlling a rate at which services are provided.

21. (previously presented) A system according to claim 20 wherein the control process manages a system resource selected from the group consisting of data storage, system memory, processor resources, and network throughput.

22. (previously presented) A method for serving streams of content at selected levels of service, comprising

listening on a data network for a request for a stream of selected content,

executing a process capable of identifying a file associated with the selected content and capable of identifying meta-data associated with the file and having information representative of one of a plurality of levels of service to provide a stream of the selected content, and

controlling access by a streaming server process to a system resource employed for processing the request as a function of the level of service associated with the selected content.

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23. (currently amended) A method according to claim 22 wherein controlling access to a system resource includes controlling access to a system resource selected from the group consisting of processor time, system memory, disk access, network bandwidth, and buffer space, [[, and]]

24. (previously presented) A method according to claim 22 wherein controlling access includes selecting a priority for a thread processing the stream of selected content.